

Claim 19 (amended). The method according to claim 16, wherein the fabricating of the semiconductor structure comprises the following steps:

providing two silicon semiconductor substrates;

oxidizing and forming a respective oxide layer on the two silicon semiconductor substrates;

joining the two silicon semiconductor substrates by contacting the two oxide layers; and

partially removing one of the silicon semiconductor substrates and forming the monocrystalline silicon layer.

Claim 21 (amended). The method according to claim 16, which comprises patterning the monocrystalline silicon layer by etching away regions thereof down to the underlying insulation layer.